

REMARKS

Claims 1-11, 14, and 15 are all the claims pending in the application.

Finality is premature

As an initial matter, Applicants respectfully submit that the finality of the Office Action is premature. For example, the Examiner rejects claims 9 and 10 under 35 U.S.C. § 112, first paragraph as allegedly failing to comply with the written description requirement for reciting “storing the extracted edges in a recording medium”. See Office Action, page 4. However, this limitation was previously recited in claims 12 and 13, and was merely incorporated into claims 9 and 10, respectively, in the previous Amendment filed on November 13, 2007. That is, the amendment did not necessitate a new ground of rejection.

Therefore, the Examiner could have previously raised the rejection. To raise the rejection now on a final basis is prejudicial to Applicants. Further, Applicants respectfully submit that the amendments to claim 9 and 10 made in this Amendment should be entered, because the finality of the Office Action is premature.

Allowable Subject Matter

Applicants thank the Examiner for indicating that claims 2-7, 14, and 15 would be allowed if rewritten in independent form. Applicants, however, respectfully request the Examiner to hold in abeyance such rewriting of these claims until the Examiner has had an opportunity to reconsider (and withdraw) the rejection of the other claims, as discussed below in further detail.

Claim Rejections - 35 U.S.C. § 112

Claims 9 and 10 are rejected under 35 U.S.C. § 112, first paragraph as allegedly failing to comply with the written description requirement. In particular, the Examiner contends that there is no support in the Specification for “storing the extracted edges in a recording medium”, as set forth in claims 9 and 10. See Office Action, page 4. Applicants respectfully disagree.

For example, in order for the claimed method to function, it would have to be stored and executed on hardware. For *at least* this reason, it would be obvious to a skilled artisan that the inventor had possession of the claimed invention as set forth in claims 9 and 10 at the time the application was filed. Therefore, claims 9 and 10 comply with the requirements of 35 U.S.C. § 112.

Furthermore, Applicants note that MPEP § 2163 states that:

A description as filed is presumed to be adequate, unless or until sufficient evidence or reasoning to the contrary has been presented by the examiner to rebut the presumption. See, e.g., *In re Marzocchi*, 439 F.2d 220, 224, 169 USPQ 367, 370 (CCPA 1971). The examiner, therefore, must have a reasonable basis to challenge the adequacy of the written description. The examiner has the initial burden of presenting by a preponderance of evidence why a person skilled in the art would not recognize in an applicant’s disclosure a description of the invention defined by the claims. *Wertheim*, 541 F.2d at 263, 191 USPQ at 97. In rejecting a claim, the examiner must set forth express findings of fact regarding the above analysis which support the lack of written description conclusion. These findings should:

- (A) Identify the claim limitation at issue; and
- (B) Establish a *prima facie* case by providing reasons why a person skilled in the art at the time the application was filed would not have recognized that the inventor was in possession of the invention as claimed in view of the disclosure of the application as filed (emphasis added).

Here, the Office Action fails to satisfy *at least* the second requirement for supporting a written description rejection. Specifically, there is no reasoning provided in the Office Action as to why a person skilled in the art at the time the application was filed would not have recognized that the inventor was in possession of the invention as claimed (e.g., “storing the extracted edges in a recording medium”) in view of the disclosure of the application as filed.

As such, because (1) it would be obvious to a skilled artisan that the inventor had possession of the claimed invention, and (2) the Office Action does not set forth any express findings of fact that would support the lack of written description conclusion, Applicants respectfully submit that the claims comply with the requirement of 35 U.S.C. § 112.

Claim Rejections - 35 U.S.C. § 101

Claims 9 and 10 are rejected under 35 U.S.C. § 101 as allegedly not being directed to statutory subject matter. In particular, the Examiner asserts that the claimed subject matter does not produce a useful and tangible result. See Office Action at pages 5-7.

In view of the amendments to claims 9 and 10, Applicants respectfully submit that the claims comply with the requirements of 35 U.S.C. § 101. For example, Applicants respectfully submit that claims 9 and 10 produce a useful result. Claims 9 and 10 recite inserting a watermark in portions of a frame from which the edges were extracted. As it is correctly pointed out in the Office Action, in an exemplary embodiment of the present invention, the utility is directed to inserting a watermark into an image.

Moreover, since it has been shown above that claims 9 and 10 comply with the written description requirement, Applicants respectfully submit that the claims also produce a tangible result (e.g., the extracted edges stored on a recording medium)¹.

Accordingly, withdrawal of the 35 U.S.C. § 101 rejection is respectfully requested.

¹ The Examiner was not taking this feature into account under the § 101 rejection.

Claim Rejections - 35 U.S.C. § 103

Claims 1, 8, and 11

Claims 1, 8, and 11 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,535,617 to Hannigan *et al.* (“Hannigan”) in view of U.S. Patent No. 6,061,793 to Tewfik *et al.* (“Tewfik”). For *at least* the following reasons, Applicants respectfully traverse the rejection.

Applicants respectfully submit that claim 1 is patentable over the proposed combination of Hannigan and Tewfik. For example, claim 1 relates to a **moving** image watermarking method using a human visual system. The method comprises, *inter alia*, **obtaining a global masking value through separately performed masking operations**, and obtaining a watermarked frame value by adding the watermark value **weighted by the global masking value and a control variable**, to an original frame value.

For example, it was submitted in the previous Amendment that there is no motivation to combine Tewfik’s teachings with those of Hannigan’s (see previous Amendment, page 7, last paragraph). In particular, it was submitted that there would be no reason for a skilled artisan to look at Tewfik to make up for the deficient teachings of Hannigan, since a masking scheme and a watermark embedding method that is explicitly specific to audio data (Tewfik) cannot be applied to image data (Hannigan). The Examiner, in response, disagrees and alleges that a global masking value is “obtained in the same way whether the data is an image data or audio data” (Office Action, page 3, paragraph 8). Applicants respectfully disagree.

Applicants respectfully submit that the Examiner fails to provide support for making such an assertion. Furthermore, this assertion is incorrect. For instance, since the global masking value is used for watermarking purposes, it would be obvious to a skilled artisan, when

attempting to watermark an image, to take into account the values of the pixel data in an image which are, e.g., least recognizable by the eye and embed a watermark therein. When a watermark is to be embedded in an audio signal, the skilled artisan would take into account portions of the audio data that are, e.g., least decipherable by the ear, and embed a watermark therein. Therefore, Applicants respectfully submit that the Examiner's assertion that the global masking value is obtained in the same way whether the data is an image data or audio data is incorrect. It follows that a method for obtaining a global masking value for image data would be unique and different from a method for obtaining a global masking value for audio data.

In view of the foregoing, Applicants respectfully submit that the alleged combination of Hannigan and Tewfik does not teach or suggest all the above-noted features of claim 1. Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. § 103(a) rejection of claim 1.

Claim 8 is patentable *at least* by virtue of its dependency.

Claim 11 relates to a recording medium for storing computer programs for executing the method of claim 1 in a format readable by computers. Therefore, claim 11 is patentable for *at least* reasons similar to those given above with respect to claim 1.

Claims 9 and 10

Claims 9 and 10 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over U.S. Patent No. 6,954,549 to Kraft in view of Hannigan. For *at least* the following reasons, Applicants respectfully traverse the rejection².

² Applicants note that claims 12 and 13 are also addressed in the Office Action on page 11. Applicants respectfully submit that since claims 12 and 13 are canceled, the rejection thereto is rendered moot.

Applicants submit that claim 9 is patentable over the alleged combination of Kraft and Hannigan. For example, claim 9 recites a spatial masking method for use in watermarking a moving picture, comprising extracting edges from the contrast-adjusted frame, and inserting a watermark in portions of the contrast-adjusted frame from which the edges were extracted. The Examiner contends that col. 2, lines 6-15, and lines 40-48 of Kraft disclose extracting edges from a contrast-adjusted frame. Applicants submit that Kraft alone, or in combination with Hannigan, does not teach or suggest all the features of claim 9.

For example, in response to the arguments submitted in the previous Amendment, the Examiner alleges that Kraft discloses extracting edges of a frame by teaching that the detailed contrast of an image is determined on the basis of an image subject to a removal process, and thus, edges of an image are addressed by pixels and are subject to a removal or extraction process. See Office Action, page 4, paragraph 9.

However, even assuming *arguendo* that Kraft discloses extracting the edges as set forth in claim 9, Kraft does not disclose inserting a watermark in portions of the contrast-adjusted frame from which the edges were extracted. Rather, Kraft discloses that in the masked regions (allegedly the extracted edges), correction of the photographic image data is carried out (Kraft, col. 2, lines 50-53). Hannigan is only relied upon for teaching a moving image and spatial masking. See Office Action at page 10.

Therefore, Applicants respectfully submit that claim 9 is patentable over Kraft, Hannigan, or any conceivable combination thereof.

Claim 10 recites features similar to those discussed above with respect to claim 9. Therefore, claim 10 is patentable for *at least* reasons similar to those given above with respect to claim 9.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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